

Appendix G

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MEDIA MARKETS AND LOCALISM: DOES LOCAL NEWS
EN ESPAÑOL BOOST HISPANIC VOTER TURNOUT?

Felix Oberholzer-Gee
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Media Markets and Localism: Does Local News *en Español* Boost Hispanic Voter Turnout?

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ABSTRACT

Since the dawn of broadcasting, and especially in the past decade, Americans have turned their attention from local to more distant sources of news and entertainment. While the integration of media markets will raise the private welfare of many consumers, a globalized information and entertainment industry can undermine civic engagement, transforming locally engaged citizens into viewers consuming programming from distant sources. In response to such concerns, many regulatory agencies, including the Federal Communication Commission in the United States, curtail the integration of media markets to promote “localism.” Determining the right balance between the private benefits of integrated markets and the public value of civic engagement requires evidence on the size of the positive spillovers from local media. In this paper, we exploit the rapid growth of Hispanic communities in the United States to test whether the presence of local television news affects local civic behavior. We find that Hispanic voter turnout increased by 5 to 10 percentage points, relative to non-Hispanic voter turnout, in markets where local Spanish-language television news became available. Thus, the tradeoff between integrated media markets and civic engagement is real, and our results provide a basis for the continued pursuit of regulatory policies that promote localism.

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I. Introduction

The increased integration of markets for news and entertainment fundamentally changes the quality and quantity of media products available to consumers. Because the production of entertainment and news is characterized by significant fixed cost, increases in market size raise the number and quality of products. Consequently, more viewers can watch shows that better match their preferences. For instance, satellite and cable TV have brought American football to Europe, Japanese anime to Latin America and Mexican soap operas to the United States. But the availability of these products can reduce the consumption of local news and entertainment in two ways. First, consumers who prefer anime to local news will watch the former. Second, the local media products that lose their audiences may be forced to change their targeting or cut quality, and they may even cease to exist if their audience falls below a critical threshold. Thus, in integrated media markets, even those who prefer local content may end up watching globalized shows. For these reasons, some scholars claim that the rise of integrated media transforms locally engaged *citizens* into passive *viewers* and undermines civic society (Putnam, 2000).

Against this backdrop, many regulatory agencies, including the Federal Communications Commission (FCC) of the United States, seek to protect local media and promote localism. In the words of former FCC Chairman Michael K. Powell, “fostering localism is one of this Commission’s core missions and one of three policy goals, along with diversity and competition, which have driven much of our radio and television broadcast regulation during the last 70 years.”

Is “localism” really desirable? In particular, are there positive spillovers from the provision of local content that can help justify the loss of private welfare that integrated media markets would produce? In this paper we propose a simple test for the presence of spillovers from local news programming. We ask if the presence of local television news affects local civic behavior. The ubiquity of local television news programming across all US metro areas makes it impossible to study its effects on the general population. In contrast, the availability of Spanish-language local television news has changed considerably in recent years, providing us with an experiment to study the effect of local news on electoral participation. The number of metropolitan areas with Spanish-language local television news (on *Telemundo* or *Univision*) grew from 14 in 1994 to 25 in 2002. This trend reflects the rapid increase in the U.S. Hispanic population, which grew by 58 percent between 1990 and 2000, from 22 to 38 million. The non-Hispanic US population increased by 9 percent over the same time period.

We use cross-sectional and time-series variation in the availability of news in Spanish to study its effects on one important measure of civic engagement, voter turnout. We find that, relative to non-Hispanic electoral participation, Hispanic turnout is five to ten percentage points higher in markets with Spanish-language local television news. Longitudinal estimates, based on markets that get a first local Spanish-language news program between 1994 and 2002, are somewhat smaller but still economically and statistically significant. For the case of Spanish-language television news, the spillovers from local media to civic engagement exist, and they appear to be fairly important.

Documenting an increase in spillovers for television is of particular interest because, in the concern about disengagement from local activities, television is generally

singled out for the most criticism. There is compelling evidence, for example, that the spread of television between 1950 and 1970 caused both the decline in local newspapers and a substantial drop in voter turnout (Gentzkow, 2004). However, claims that *television* undermines local civic engagement ascribe to a medium what is a more general economic effect. As this study documents, even in today's fairly integrated markets, television is quite capable of *increasing* civic engagement if there is sufficient spatial agglomeration of individuals with similar tastes. Based on our results, we conclude that the decline in turnout that followed TV was not due to a specific effect of television; it was market integration that undermined electoral participation. Our evidence that local media affect engagement in local politics provides some empirical basis for the policy promotion of localism across different forms of media.

This paper proceeds in four sections. We present some background on how the number of products depends on the spatial distribution of consumer preferences in section 2. Section 3 introduces the data used in the study. Next, we present evidence on how the availability of Spanish-language local television news depends on the size of the local Hispanic population. In section 5, we present estimates of the effect of Spanish-language local news on Hispanic voter turnout in non-presidential general elections. We conclude with a discussion of how markets can undermine or foster civic engagement.

II. Background

This study links the literature on entry in differentiated product markets with recent models of political economy. There is ample evidence that, in the presence of fixed costs, products are made available in markets only when large groups want them.

For instance, black-targeted radio stations are only available in markets with many black citizens (Siegelman and Waldfogel, 2001; Waldfogel, 2004). Similarly, daily newspapers report more frequently about issues of interest to blacks in cities with a larger black share of population. This in turn increases black readership (George and Waldfogel, 2003). In the context of this study, we expect to observe Spanish-language news programming only in markets with a substantial number of Spanish speakers.

Hispanics in markets with local Spanish news, we believe, are also more likely to participate in elections. Models of political economy suggest several reasons why better-informed citizens are more likely to turn out. One explanation is that the consumption benefits of voting might be larger if citizens are more confident of voting for the “right” candidate (Matsusaka, 1995). Alternatively, less-informed voters can have an incentive to delegate their vote to better informed citizens via abstention (Feddersen and Pesendorfer, 1996, 1999). Whatever the underlying mechanisms, a well-documented, strong empirical regularity is that people who receive campaign messages are more likely to participate in elections (Cox and Munger, 1989; Caldeira, Clausen and Patterson, 1990; Bartels, 1993; Wielhouwer and Lockerbie, 1994; Shachar and Nalebuff, 1999; Gerber and Green, 2000b). Thus, the basic premise of our approach is that Spanish speakers will find it easier to become informed about an election, and candidates will find it less complicated to reach likely Hispanic voters, in markets with local Spanish news. Both mechanisms will raise the turnout of Hispanics.

III. Data

The data for this study are drawn from three sources: the Current Population Survey's Voting Supplement, 1994-2002; the 1990 and 2000 US Census; and direct collection of information on the availability of Spanish-language local television news in US metropolitan areas. Specifically, we have an MSA panel for the even-numbered years between 1994 and 2002 on the number of stations offering local news in Spanish for all US metro areas, and individual-level voter turnout data from the CPS. The CPS data also indicate the individuals' MSA, Hispanic status, and various individual characteristics. The metropolitan areas in our sample contain 85 percent of US Hispanic population in 2000.

We gathered our list of stations broadcasting news in Spanish from the *Telemundo* and *Univision* websites. We contacted each of these 50 stations to learn if they produce and broadcast local news. We also know when these stations began airing local news in Spanish. This information allows us to construct a variable indicating whether there is local Spanish-language news in each year for 265 markets. We assume that the metropolitan areas without affiliates of these networks lacked local Spanish news. In 1994, there were 14 metro areas with Spanish-language local news, containing 63 percent of the Hispanics in the sample. By 2004, the number of sample metro areas with Spanish-language local television news had increased to 25, and these 25 areas contained 76 percent of sample Hispanic population.¹

IV. Availability of Spanish-Language Local News

¹ Percentages based on 2000 Census Hispanic population of each metro area.

In our approach, we assume that the availability of Spanish news reflects the size of the Hispanic population. Table 1 explores the determinants of having at least one local station broadcasting local news in Spanish via a probit relating the presence of Spanish-language local news to the size of the Hispanic and the non-Hispanic population. The table reports probability derivatives for 1990 (panel A) and 2000 (panel B) Census data. Not surprisingly, Hispanic population bears a positive and significant relationship to the likelihood of having local news in Spanish. An additional million Hispanics raises the probability by 45 percent in 1994. There is no such relationship for the non-Hispanic population. The estimates for 1994 (panel A) imply that the Hispanic population needs to reach a size of at least 350,000 for the probability of having Spanish news to exceed 50%. As figure 1 shows, many more metro areas are to the right of this threshold in 2000 than in 1990. By 2004, 25 of the 265 metro areas have at least one Spanish-language local news broadcast (see table 2).

While Spanish-language local news is available in only selected metropolitan areas, national news on *Telemundo* or *Univision* is available almost anywhere via cable and sometimes also over the air during the entire study period. National news programs cover the presidential election, so even Hispanic populations lacking local Spanish-language news had easy access to news about the presidential contests in 1996 and 2000. The widespread availability of Spanish-language national news suggests that the effects of Spanish-language local news programming on Hispanic turnout will be larger in non-presidential election years.

V. Spanish Local News and Hispanic Voter Turnout

1. Empirical Strategy

We are interested in determining whether the availability of Spanish-language local television news programming affects Hispanic voter turnout. A simple approach to this question would be to relate an Hispanic individual's turn-out decision to a measure of the availability of Hispanic language news (HLN), estimating a model of the form

$$(1) \quad V_{im} = \alpha HLN_m + X_i \beta + v_{im}$$

on a sample of Hispanic persons. In equation (1), V_{im} is a dummy indicating if individual i who lives in metro area m voted. X_i contains characteristics of the individual, HLN_m indicates whether the area has Spanish-language local television news, and v_{im} is an error term.

A basic problem with this approach is that the tendency for individuals (Hispanic or otherwise) to vote may be related to unobserved area factors, or that the error term is really $v_{im} = \mu_m + \varepsilon_{im}$, where μ_m is common to all persons in the metro area. Factors of this sort might include the ease with which persons can travel to the polls, or the weather. If this is the form of unobserved differences, one solution is to “difference out” the behavior of non-Hispanics. If δ^H is an indicator for whether a person is Hispanic, then we can estimate

$$(2) \quad V_{im} = \alpha HLN_m + X_i \beta + \alpha^H \delta^H HLN_m + \delta^H X_i \beta^H + \mu_m + \varepsilon_{im}$$

using the entire (Hispanic and non-Hispanic) sample. If Spanish-language news boosts Hispanic turnout – but not non-Hispanic turnout – we expect α^H to be positive. That is, we expect the relationship between HLN and turnout to be more positive for Hispanics than for non-Hispanics.

While appealing, the above approach remains vulnerable to a concern of group-specific unobservables correlated with voter turnout. For example, Hispanics interested in political participation may congregate in metropolitan areas with media outlets. Circumventing this problem requires group-specific unobserved fixed effects for each metro area. Because we have data on 5 separate elections – and because of the growth in the availability of Spanish-language local news availability during our sample – we can include group-specific MSA fixed effects in our models. That is, we can estimate a longitudinal model of the form:

$$(3) \quad V_{imt} = \alpha HLN_{mt} + X_{it} \beta + \alpha^H \delta^H HLN_{mt} + \delta^H X_{it} \beta^H + \phi_t + \mu_m^H + \mu_m^{Non-H} + \varepsilon_{im},$$

including group-specific MSA effects as well as time effects.

2. Results

Before turning to regression evidence, we can get suggestive evidence about the effect of Spanish language local television news on Hispanic turnout from a comparison of Hispanic and non-Hispanic turnout in markets with and without local Spanish-language television news (table 3). Using all available years for our sample markets (panel A), Hispanic voter turnout averages 37 percent in markets without local Spanish news and 45 percent in markets with local television news in Spanish. Non-Hispanic turnout is 58 percent in markets without, and 60 percent in markets with Spanish-language local television news. Whatever is raising Hispanic turnout in the places with Spanish-language television news, it does not affect non-Hispanics.

Panels B and C of table 3 separate presidential and non-presidential election years. Two contrasts are immediately evident. First, turnout is much higher in presidential election years, for both Hispanics and non-Hispanics, regardless of the local

media environment. Second, the difference in Hispanic turnout in places with and without Hispanic local news, relative to the same geographic difference for non-Hispanics, is slightly larger in absolute terms for non-presidential years. That is, the difference in differences for non-presidential years is 7.6 percentage points, while the difference in differences for presidential years is 6.3 points.² Of course, the simple statistics in table 3 are raw, and we turn to regressions to revisit these comparisons with statistical controls.

Table 4 presents probit estimates of the model in equation (2), reporting probability derivatives. The X variables included are indicators for income quartiles, education level, and gender, as well as first and second-order terms in age. We allow the coefficients on all X variables to vary by Hispanic status. The first column pools all years of data, and the results echo table 3a. After accounting for individual observable characteristics, the difference in non-Hispanic turnout is slightly negative (-2.6 points). The difference in differences for Hispanics is 9.8 percentage points. Pooling the non-presidential years, in column (2), the difference in differences is 11.1 percentage points, while it is 7.7 percentage points for the presidential years. (We discuss columns (4)-(6) below).

These results are consistent with other recent evidence on the relationship between black-targeted local papers as well as radio stations and black voter turnout (Oberholzer-Gee and Waldfogel, 2005). Like this one, that study documents elevated turnout by blacks (relative to whites) that were particularly large in non-presidential elections. The results above show that Spanish-language local television news boosts

² To see this, note that $(40.0-30.8) - (54.5-52.9) = 7.6$, while $(53.5-45.7)-(68.5-67.0)=6.3$.

Hispanic voter turnout in non-presidential elections from about 30 to about 41 percent – or by over a third. In presidential election years, the presence of Spanish-language local television news appears to raise Hispanic turnout from about 46 to 54 percent, or by about a sixth.

Table 5 presents longitudinal estimates of model (3), which we implement as a linear probability model because of the large number of dummy variables. We find that α^H is roughly 5 percentage points and statistically significant. While smaller than the estimates from the cross sectional models, this still implies that HLN presence boosts Hispanic turnout by roughly 15 percent. When we estimate the model separately for the presidential and non-presidential election years, we obtain a statistically significant estimate of 7.8 percentage points for non-presidential years and a statistically insignificant estimate of 2.0 percentage points for presidential election years.

3. Robustness

The evidence in tables 4 and 5 shows that Hispanic voter turnout is higher in places with Spanish-language local news. This result arises both in the cross section as well as over time, as more places get Spanish-language local news. Earlier, in table 1, we showed that places with more Hispanics are more likely to have access to Spanish-language local television news. A natural concern about our documented relationships between Hispanic voter turnout and Spanish-language local television news is that it actually reflects some other mechanism operating through the level or growth of local Hispanic population. For example, a sufficiently large local Hispanic population may facilitate the existence of other institutions, such as clubs or political organizations that

also boost voter turnout. If these organizations are more effective in local than in national elections, their presence could explain the results in tables 4 and 5.

To explore this possibility, we estimate our basic models including the indicator for Spanish local news as well as the size of the Hispanic population. In particular, columns (4)-(6) of Table 4 add Hispanic population and its interaction with the Hispanic dummy to model (2). In these models, the coefficients on the interaction of the Hispanic dummy and the local Spanish news variable become smaller, but the basic pattern remains, and the coefficient for non-presidential years retains its statistical significance (0.07 rather than 0.11). Columns (4)-(6) of Table 5 add Hispanic population and its interaction with the Hispanic dummy to the longitudinal model (3).³ As with the cross sectional model, the coefficients decline although the pattern (of higher coefficients for the non-presidential election years) remains the same. Rather than 0.077 (with a standard error of 0.031), the coefficient falls to 0.053 (with a standard error of 0.033).

4. Size of the Estimated Effect

We take our results to indicate that Spanish-language news programs boost Hispanic turnout by 5 to 10 percentage points overall. In non-presidential election years, the periods when the presence of local news actually changes the kind of political information available to Spanish-speakers through television, the effects are quite large. The presence of Spanish-language local television news raises Hispanic turnout by 8 to 11 percentage points. Because Hispanic turnout averages 30 percent in non-presidential elections in places without local Spanish-language television news, the effects are

³ We only observe Hispanic population by MSA at decennial frequency. We calculate each non-Census-year's population using constant MSA-specific geometric growth rates.

between 27 and 37 percent. Using Hispanics as a window into the possible effects of television on political behavior, it appears that the effects of television on voter turnout can be large and positive.

As a practical matter, local television news can substantially change the Hispanic composition of the electorate. While Hispanics make up only 12.5 percent of the US population, their share varies widely across areas. Across the 265 sample metro areas, the median Hispanic share is 3.7 percent, while the 75th percentile is 8.4 percent, and the 90th percentile is 27.0 percent. Figure 2 illustrates the effect of local Spanish-language television news on the Hispanic share of the electorate in non-presidential elections, using a simple calculation: Assume (from table 3b) that 31 percent of Hispanics turn out to vote if there is no Spanish-language local news, while 39 percent turn out if there is Spanish-language local news (31 percent, plus the relatively conservative longitudinal estimate). Assume (from table 3b) that 53 percent of non-Hispanics turn out in non-presidential elections. Then, if h is the share of an area's population that is Hispanic, then the Hispanic share of the electorate is $(0.31 + \delta 0.08)h / [(0.31 + \delta 0.08)h + 0.53(1 - h)]$, where δ is 1 if there is Spanish-language local news, 0 otherwise. Figure 2 plots the Hispanic share of the electorate with and without Spanish-language local news. For example, when Hispanics make up a quarter of local population, they make up 16.2 percent of the electorate without Spanish-language local news and 19.5 percent of the electorate with Spanish-language local news. When Hispanics make up half of local population, their corresponding shares of the electorate are 36.8 and 42.1.

VI. Conclusion

With more integrated media markets and a larger variety of programming choices, many consumers opt for non-local programming. While such choices enhance the private benefits of media consumption, there is a concern that reduced localism undermines civic engagement. Exploiting variation in the cost of accessing information about local politics, we find support for this concern. Hispanics without access to local television news are significantly less likely to participate in elections than Hispanics with access to news in Spanish.

Finally, our study shows that television bears a mixed relationship with political participation. Historically, the spread of television has been linked with declining political participation. But it is important to distinguish medium-specific effects from the effects of market integration. Television carries both local and national news. The spread of television, like other national information sources, can attract people away from local products and local affairs. But television can also include local content, chiefly local news, and we find that the availability of Spanish-language local television news significantly boosts Hispanic voter turnout. Even today, television is quite capable of increasing civic engagement if there is sufficient spatial agglomeration of individuals with similar tastes.

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Table 1: Presence of Spanish-Language Local Television News

a. Using 1990 Population

	(1)	(2)	(3)	(4)	(5)
	1994	1996	1998	2000	2002
Non-Hisp. Pop 90 (mil)	-0.0308 (0.0168)	-0.0279 (0.0214)	-0.0158 (0.0200)	-0.0273 (0.0245)	-0.0304 (0.0304)
Hisp. Pop 90 (mil)	0.4445 (0.1941)*	0.6142 (0.2144)**	0.9309 (0.3008)**	1.1803 (0.3516)**	2.2953 (0.6323)**
Observations	265	265	265	265	265

b. Using 2000 Population

	(1)	(2)	(3)	(4)	(5)
	1994	1996	1998	2000	2002
Non-Hisp. Pop 90 (mil)	-0.0323 (0.0157)*	-0.0331 (0.0192)	-0.0190 (0.0181)	-0.0288 (0.0212)	-0.0438 (0.0273)
Hisp. Pop 90 (mil)	0.2485 (0.1046)*	0.3316 (0.1139)**	0.4427 (0.1396)**	0.5523 (0.1609)**	1.3458 (0.3742)**
Observations	264	264	264	264	264

Standard errors in parentheses. * significant at 5%; ** significant at 1%.
 Probit estimates. Probability derivatives reported.

Table 2: Growth in Metro Areas with Spanish-Language Local Television News

	None	One Station	Two Stations
1994	251	9	5
1996	249	11	5
1998	246	13	6
2000	244	12	9
2002	240	14	11

Table 3: Hispanic and Non-Hispanic Voter Turnout and the Presence of Spanish-Language Local Television News

a. All Years			
Spanish-Lang. Local News	Hispanic	Non-Hispanic	
No	36.8	58.2	
Obs	5,441	173,328	
Yes	45.2	59.8	
Obs	11,732	79,330	
b. Non-Presidential Election Years (1994, 1998, 2002)			
Spanish-Lang. Local News	Hispanic	Non-Hispanic	
No	30.8	52.9	
Obs	3,265	107,837	
Yes	40.0	54.5	
Obs	7,235	49,565	
c. Presidential Election Years (1996, 2000)			
Spanish-Lang. Local News	Hispanic	Non-Hispanic	
No	45.7	67.0	
Obs	2,176	65,491	
Yes	53.5	68.5	
Obs	4,497	29,765	

Table 4: Voter Turnout and the Presence of Spanish-Language Local Television News

	(1)	(2)	(3)	(4)	(5)	(6)
	All yrs	94, 98, 02	96, 00	All yrs	94, 98, 02	96, 00
Hispanic Dummy × Spanish Local News	0.0979 (0.0179)**	0.1113 (0.0216)**	0.0773 (0.0167)**	0.0486 (0.0260)	0.0684 (0.0343)*	0.0256 (0.0258)
Local Sp. News Presence	-0.0255 (0.0100)*	-0.0232 (0.0124)	-0.0286 (0.0099)**	-0.0237 (0.0176)	-0.0181 (0.0222)	-0.0318 (0.0164)
Log Hispanic Pop				-0.0004 (0.0032)	-0.0012 (0.0041)	0.0008 (0.0029)
Hispanic Dummy × Log Hispanic Pop				0.0176 (0.0072)*	0.0151 (0.0092)**	0.0190 (0.0064)**
Observations	240627	150100	90527	231361	144808	86553

Notes: Probit estimates, with probability derivatives reported. All models include group-specific (Hispanic and non-Hispanic) dummies for income, education levels, gender, and terms in individuals' age. Robust standard errors, clustered on metro area, are given in parentheses.

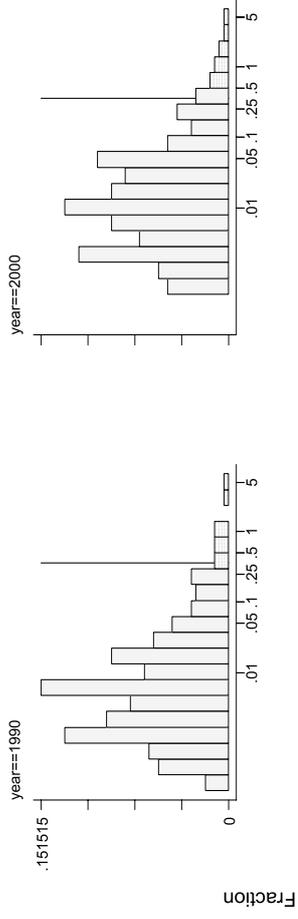
* significant at 5%; ** significant at 1%.

Table 5: Voter Turnout and the Growth in Spanish-Language Television News Presence

	(1)	(2)	(3)	(4)	(5)	(6)
All		94, 98, 02	96, 00	all	94, 98, 02	96, 00
Hispanic Dummy ×	0.0478	0.0774	0.0199	0.0315	0.0534	0.0113
Local Sp. News Presence	(0.0244)	(0.0305)*	(0.0506)	(0.0257)	(0.0331)	(0.0518)
Local Sp. News Presence	-0.0000	0.0001	0.0024	-0.0035	-0.0052	0.0019
	(0.0067)	(0.0084)	(0.0126)	(0.0067)	(0.0084)	(0.0127)
Log Hisp Pop				0.0560	0.0689	-0.0214
				(0.0079)**	(0.0090)**	(0.0178)
Hispanic Dummy ×				0.0734	0.0752	0.0905
Log Hispanic Pop				(0.0499)	(0.0611)	(0.1052)
Constant	0.5271	0.5274	0.6414	0.6535	0.6831	0.6472
	(0.0028)**	(0.0031)**	(0.0045)**	(0.0175)**	(0.0201)**	(0.0316)**
Observations	269831	167902	101929	257770	160417	97353
R-squared	0.02	0.00	0.00	0.02	0.00	0.00

Notes: Probit estimates, with probability derivatives reported. All models include group-specific (Hispanic and non-Hispanic) year effects, metro area fixed effects, dummies for income, education levels, gender, and terms in individuals' age. Robust standard errors, clustered on metro area, are given in parentheses.
 * significant at 5%; ** significant at 1%.

Figure 1: Hispanic Metro Area Population and the 1994 Entry Threshold



Hisp Pop (mil)
Histograms by year

Figure 2

